ANALYTICAL AND BIBLIOGRAPHICAL NOTICES.

Art. XXVII.—*Medico-Chirurgical Transactions.* Published by the Royal Medical and Chirurgical Society of London. Volume the Fifty-seventh. 8vo. pp. lxiii., 298. London: Longmans, Green, Reader, and Dyer, 1874.

By frequent intercourse with books most men insensibly acquire the habit of regarding them in the light of personal acquaintances, and more especially is this the case when, as an annual volume, the old friend crosses the path at stated intervals, ever in the same shape, but with new contents, and with varying thoughts, feelings, and views. The individual minds which have made the reputation of this most aristocratic of medical publications, and which still contribute to enable it to maintain its pre-eminence, have been and are among the masters in our profession, as representatives of British medicine, and as we take up the book we feel that its inspection will amply repay whatever labour it may cost. It not being our intention, however, to indulge in reflections upon the past and the position these *Transactions* occupy as a whole, we will proceed at once to analyze in two groups, surgical and medical, the different articles in this volume. The surgical papers are numerous and of interest. Some of them, however, having been noticed in former pages of this Journal, require no consideration from us, and we shall merely present short abstracts of those which have not been already brought to the notice of our readers.

On the opening page Mr. Henry Lee communicates a case of much interest, and one which, so far as our reading enables us to judge, we believe to be exceedingly rare, if not unique. The patient was a girl ten years old who suffered under "*imperfect development of the circular muscular fibres of the rectum and vagina.*" There must have been absence of the perineum itself, for the rectum and vagina had a common opening, such a condition of the parts being represented in the wood-cut incorporated in the text. We are not told how far down the recto-vaginal septum extended, yet that a partition did exist is evident from the fact that examinations of either organ are spoken of as having been repeatedly made. The uterus was rudimentary.

The case presented itself for the relief of obstinate constipation, which had lasted to the formation of an abdominal fecal tumour, which reached down to and distended the cloaca. The symptoms were alleviated by the free use of a scoop and stimulating purgatives, but speedily recurred when the treatment was suspended, and appeared to be dependent upon the imperfect muscular power of the bowel. As the case only admitted of temporary relief and will be most likely to present itself again, we shall hope to hear of it at some other time, and that we shall then be furnished with a more accurate, or, at least, more elaborate anatomical description.

We recollect as a child, when forbidden to eat buckwheat cakes, making up our mind that our doctor was much influenced in his opinions as to what was digestible and what was not, by his own likes and dislikes, and we cannot escape from a similar mental process, and concluding, although, perhaps, upon equally slender data, that Mr. William Spencer Watson is not a slave to tobacco.

We arrive at this opinion from the suspicion he expresses that "*a case of idiopathic hyalitis,*" of which he narrates the history, had its origin in the use of that vegetable bane. Now we fail to see why the occurrence of so very rare an affection as inflammation of the vitreous body without implication of any other ocular tissue, may not just as well coincide with the use of potatoes or tea, but we are not informed whether the patient used either of these articles. Mr. Watson speaks of the great rarity of the disease, and refers to the experiments instituted by Donders and Pagenstecher, who obtained directly opposite results. In our opinion the history of this case, as told, certainly tends to prove the accuracy of the diagnosis of hyalitis. The patient, a middle-aged man of temperate habits, save for the use of tobacco and beer, was almost entirely blind in both eyes; the vitreous body and lens were very turbid; there was much pain and tenderness but no increased tension; both irides responded to the use of atropia, the right more fully than the left; and while there was some sclerotic injection, it did not possess the characteristics of an iritic zone. In the absence of any other cause the trouble was supposed to depend either upon syphilis (of which, however, no reliable history could be obtained) or tobacco. The case came under treatment upon the ninth day of its existence. Under vigorous mercurial medication, and the interdiction of the use of tobacco immediate improvement took place, and proceeded to complete recovery.

The next surgical paper in the volume is the elaborate one by Mr. HUTCHINSON upon *Abdominal Section in Cases of Intussusception,* which has attracted so much attention, and was given in abstract in the number of this Journal for January, 1874, page 257. This is also the case with Mr. TUFNELL's article upon *the Successful Treatment of Aneurism by Position and Restricted Diet,* the salient points of which were presented to our readers in the number for April, 1874, page 540, while at page 547 of the same number will be found a notice of *Dislocations of the First and Second Pieces of the Sternum,* by WALTER RIVINGTON, M.S. Lond., F.R.C.S.

Large Adenocele, complicated with Milk Cyst, is the title of an interesting, thought short, contribution by Mr. F. LE GROS CLARK. The tumour made its appearance in the breast of a girl aged sixteen, enlarging gradually for six years, at which time the patient came under Mr. Clark's care, two years after her marriage. At the time of her admission into St. Thomas's Hospital the woman was in good health, and was suckling a child seven months old from the unaffected breast. The tumour was connected with the left breast, very large, measuring twenty-six and a half inches in circumference, firm, doughy, without fluctuation like a normal breast during lactation, and milk could be expressed from the nipple. The cutaneous veins were much distended, but there was no discoloration or tenderness, although some engorgement of the axillary lymphatic glands existed. The tumour, weighing eleven pounds and having its greatest bulk below the nipple, was removed, the nipple being included in the incisions, which last fact Mr. Clark afterwards regretted, as he did not find it necessary to remove the whole gland. Upon cutting into the mass from behind it was found "to consist of an enormous milk cyst, surrounded by succulent solid walls, on which were milk tubes and at least one extra cyst." The smaller cyst contained very firm cheese, while the larger one was filled with two pints of apparently fresh cream. The cyst walls were of varying thickness up to two inches, and the solid structure, weighing between eight and nine pounds, appeared to be continuous with the tissue of the breast itself. From the result of microscopical examination Mr. Clark, following Mr. Birkett (*vide Guy's Hospital Reports,* 1855), regards the growth as an "adenocele with ducts or sinuses and secretion." The patient made a good recovery, but experienced slight inconvenience at her next confinement from engorgement of some residual gland tissue; this did not last more than a few days, however, and was followed by no bad results.

Mr. HENRY LEE contributes a *Case of Primary Excision of the Ankle-joint*, which was done to remedy a compound luxation in which the lower extremities of the tibia and fibula projected through a wound on the front of the joint. The internal malleolus was broken off from the tibia, remaining in its normal position, attached to the lateral ligament. Mr. Lee sawed off the projecting ends of the bones, removed the upper articulating surface of the astragalus, and leaving the internal malleolus undisturbed, dressed the wound antiseptically. After a somewhat delayed convalescence a very useful limb was ultimately preserved, with only half an inch shortening, and firm union of the opposing bones. Through what we suppose to be an error of the printer, the age of the patient is not given, and we are thereby deprived of all knowledge of a factor which is, perhaps, of more importance than any other to the practical surgeon when called upon to make a prognosis in such cases.

From his experience in the above case, Mr. Lee has been led to adopt and recommend a new operation for excision of the ankle different from the one now in use, originally proposed by Mr. Hancock. After performing numerous operations upon the cadaver to test his opinions, Mr. Lee advises to *first* make a longitudinal incision over and down to the internal malleolus, which he removes with the aid of a Hey's saw; *second*, remove the outer malleolus by a corresponding incision upon the opposite side, then, the internal malleolus being out of the way, *third*, lateral luxation can be easily produced and the ends of the tibia and fibula with the surface of the astragalus can be removed with facility. Our author expresses the opinion that partial resections must always do poorly from the extreme slowness with which articular cartilage undergoes disintegration and absorption, and our own experience leads us to regard the objection as well taken.

On the Treatment of Rickety Deformities of the Legs by Operation is the title of an article by Mr. HOWARD MARSH, of St. Bartholomew's Hospital and of that for Sick Children. Four cases are recorded, in three of which simple breaking of the bones of the leg by subcutaneous section and the application of direct force was practised, and one case in which wedges of bone were removed from the tibiæ. In each case an operation was done upon both legs at different times, so that in this paper we have really the history of eight instances in which the practice recommended has been successful. Mr. Marsh does not consider that we are justified in lightly resorting to what may sometimes prove a very serious procedure, but advocates such a step only in those cases where, when there exists great and crippling deformity, we are unable to produce a simple green-stick fracture by a proper application of force, which plan of treatment he has found sufficient in the majority of cases coming under his care. The lithograph appended to the paper certainly shows a most gratifying result.

The paper upon *Cases of (so-called) Ichthyosis Linguæ*, by WILLIAM FAIRLIE CLARKE, Assistant Surgeon to Charing-Cross Hospital, contains the histories of sixteen instances of this affection. The characteristics given of the disease are that it is always a papilloma which may last quiescent for many, even twenty or thirty years, and then become epitheliomatous. It would appear to be always confined to the oral cavity, invariably beginning upon the dorsum of the tongue. Very rarely an affection presenting similar appearances exists upon other parts of the body congenitally, but from the facts that, in these instances, it is congenital, and shows no tendency to become cancerous, it should not be regarded as the same disease. From the place of beginning it gradually extends to the adjacent mucous membrane as an overgrowth of the papillæ and epithelium, having a silvery white appearance quite characteristic. The papillæ are hypertrophied to an extreme degree, sometimes standing out separately, at others several coalescing, or we may observe both the discrete and concrete forms upon the same tongue. The disease never entirely leaves the invaded part, and though it may be much modified by the condition of the general health, never is cured, and, as stated before, ends in cancer. In nature it would appear to be a chronic inflammation of the papillæ combined with impaired power to throw off the constantly reproduced epithelium. In four cases the irritating cause appeared to be local, while in one, inflammation of the internal ear preceded, and seemed to give rise to the trouble, suggesting a nervous pathology, but in the remaining eleven cases no cause whatever is ascribed as the starting-point by the several observers. It appears to be confined to the male sex in early manhood and middle life. While it is sometimes associated with syphilis, often there is no discoverable venereal history, nor does it prove amenable to antisyphilitic remedies. Mr. Clarke's advice is to excise it at once, if seen when very small, but if at all extensive, more than three-quarters of an inch in diameter, to let it scrupulously alone, merely paying strict attention to the general health; when it becomes epitheliomatous, however, it must be treated as cancer and excised at once without delay. Two lithographs, one of them coloured, illustrate the paper, which must certainly be regarded as an important contribution to our knowledge of the subject, and will well repay a careful study.

A Case of Necrosis of the Jaws and other Bones from the Fumes of Phosphorus, by WILLIAM SCOVELL SAVORY, F.R.S., is remarkable for the extent of the disease, which was even sufficient to produce a fatal result. The patient was a boy eighteen years old, who had been engaged in the match trade for five years. The whole lower jaw, being entirely loose, was easily removed before the formation of any new bone, with the object of mitigating the extreme sufferings of the patient, and in six months an entirely new jaw had taken its place. At the expiration of this time the case terminated fatally from the pain and consequent exhaustion attendant upon the extension of the disease. After death the upper maxilla and all the bones entering into the formation of the nasal cavity, together with portions of the sphenoid and ethmoid bones, were found extensively involved, being worm-eaten and covered with pumice-like deposits; even the enamel of a molar tooth was destroyed. The new jawbone, nearly resembling the edentulous maxilla of a very old person, is represented by two wood-cuts. The very complete restoration of this bone is referred to by Mr. Savory as a remarkable point in the case.

Thinking that the disastrous results which sometimes follow Mr. Critchett's operation for staphyloma are dependent upon injuries sustained by the ciliary nerves, Mr. ROBERT BRUDENELL CARTER proposes *an improved method of Abscission of the anterior portion of the Eyeball.* With a view of avoiding any possible injury of the ciliary nerves, Mr. Carter, after dividing the conjunctiva close to and all around the cornea, inserts a suture in the tendon of each of the recti muscles at a little distance from the cornea, then, dividing the tendons close to their insertion into the sclerotic, he shaves off the front of the ball, and draws the gaping wound together by the sutures, which have a good hold in the straight tendons, and effectually close the incision without involving the tissues of the eyeball by the insertion of a foreign body in it. The operation strikes us as an ingenious one, and should it prove successful upon more extended trial, will be of value by enabling ophthalmic surgeons to preserve a large and mobile stump well fitted to sustain an artificial eye. A patient was exhibited to the Society, at the time this paper was read, upon whom Mr. Carter had successfully performed the operation described. S. A.

We shall next invite attention to the medical papers.

Mr. WILLIAM M. ORD contributes *Some Notes of a Case of Duchenne's Pseudo-Hypertrophic Muscular Paralysis, with special reference to the Temperature of the Overgrown Limbs, and with general remarks.* There is nothing in the clinical history of this case calling for special notice at our hand; we shall therefore pass at once to the consideration of Mr. Ord's observations in regard to the temperature of the legs. These which had undergone great hypertrophy were always found to be warmer than the thighs. The results of the first observation were as follows: Right thigh, 83.0°; right calf, 85.6°; left thigh, 83.6°; left calf, 85.7°. After the child had been exposed for a few minutes to a temperature of 62° Fahr., the figures were, right thigh, 81.5°; right leg, 85.4°. On another occasion the temperature of the left thigh was 87.5°; left calf, 89.7°. Similar observations were made on three other occasions with the result of finding an excess of temperature in the calf of from 1.8° to 3.9° as compared with that of the thigh. A small piece of the muscles of the calf was obtained by means of an emporte-piece or tissue explorer and placed under the microscope, when it was found that the muscular fibres were of full size, well-defined, and free from fat or other accompaniments of degeneration. The striæ were fine, clear, and close. Between the fibres an unusual proportion of fibrous tissue was observed, and also an apparent excess of nuclei on the surface of the sarcolemmata. No excess of fat was detected in this case, but in cases in which the disease is more advanced, not only oil but a large quantity of adipose tissue is found between the muscular fibres. With this overgrowth of fibrous tissue, Mr. Ord is inclined to connect the comparatively high temperature of the calves. In answer to the assertion which is not infrequently made, that the increase in size is a real muscular hypertrophy due to the extra work thrown upon certain muscles by the weakness of others, Mr. Ord replies by saying that he satisfied himself by carefully watching his patient, that the muscles of the calves were, relatively, not stronger than the other muscles, and that they did not do more duty. On the contrary, when he moved about, the boy used the thin but much stronger muscles of the upper limbs to a much greater extent than the enlarged muscles of the legs.

In regard to the pathology of the disease, the author says :—

> "After this, I think that the conclusion is fair that first the hyperæmia, and second, the overgrowth, are due to internal causes—to causes affecting nervous centres. And I would further suggest that it is possible that the disease may have its origin in the sympathetic nervous system, outside the spinal cord and brain. The whole story is rather one of weakness following faulty nutrition, than of paralysis of muscular nerves followed by wasting of muscles."

The author points out certain characters which distinguish this disease from the progressive muscular atrophy of infancy, which Duchenne believes has been mistaken for it by Drs. Lockhart Clarke, and Bastian, who think they have proved the existence of degeneration and wasting of the anterior columns and gray matter of the cord, whereas in the examinations of the spinal cord of subjects of the pseudo-hypertrophic paralysis made under Duchenne's own directions, no morbid appearances have been detected. The progressive muscular atrophy of infancy destroys the muscles in, as its name implies, a progressive, although irregular way, and after the destruction of the muscular fibres, produces local and partial deformities, which are, to say the least, not common in the affection under consideration.

The paper is illustrated by three wood-cuts, giving views of the patients in different positions.

Although not next in order, we shall now, for the sake of convenience, notice Dr. Lockhart Clarke and Dr. Gowers's communication *On a Case of Pseudo-Hypertrophic Muscular Paralysis.* The patient in this case was, as in the other case, a boy, but was older, being 14½ years. Soon after the commencement of the disease his calves were observed by his mother to be unusually large; but long before his death the muscles of the trunk as well as those of the limbs were very much wasted. Many of the muscles were also contracted. Both of the Achilles tendons had been divided nearly four years before the fatal termination of the case by Mr. Adams, who had charge of the patient; and just before this, the notes say, the elbows were flexed and could not be straightened. The hip-joints were flexed, the thighs being brought up towards the abdomen; and the knee-joints were bent at a right angle; both being rigid from muscular contraction, which could not be overcome.

A very full description of the microscopical appearances of the muscles and spinal cord is given, which we shall, of course, be obliged to abridge very considerably.

> "The gastrocnemius muscles were," the authors say, "small, not more than one-third of the normal size. Each muscle presented the appearance of a mass of adipose tissue. On section it was pale in colour and greasy to the touch. No trace of red tint could be seen in it. Under the microscope it consisted for the most part of distended fat cells, which lay between and separated widely bundles of muscular fibres. The fat cells were quite similar to those constituting an ordinary lipoma; they varied in size from $\frac{1}{250}$ to the $\frac{1}{1000}$ of an inch. In a few a nucleus could be seen. They contained, when fresh, no crystals. The amount of connective tissue between them was small." "The spinal cord, as it was removed from the body, seemed perfectly healthy and of normal consistence; but after being very carefully hardened in chromic acid, thin sections made in every region revealed, under the microscope, varied and extensive lesions. There was disintegration, in a greater or less degree, of the lateral gray network which is so conspicuous in this region between the caput cornu posterioris and the *tractus intermedio-lateralis,* and through which the spinal accessory makes its way in that tract. The tract itself was to a certain extent in a state of incipient disintegration, and on one side was, in many sections, traversed by a dilated and congested bloodvessel around which the tissues had begun to suffer. The white columns were not perceptibly altered, but one lateral half of the anterior white commissure was entirely destroyed and replaced by granular *débris,* by exudations, and extravasated blood-globules, which also filled the triangular space at the bottom of the anterior median fissure."

Both the lateral and posterior white columns were in many sections much damaged by sclerosis. Very similar changes were detected in other parts of the spinal cord, and these are well shown in three plates which accompany this paper.

Dr. Charles J. B. Williams, after briefly referring in his paper *On the Acoustic principles and construction of Stethoscopes and Ear Trumpets* to the history of the discovery of the stethoscope, describes an instrument which he says he has found freer from objections than any other with which he is acquainted. It is made of ebonite, which has the great advantage of being easily formed into any shape, and of being also light, durable, and a good conductor of sound. In regard to the form, he says it is obvious that this should insure complete contact with both chest and ear; and this not only because the conduction of sound is thereby facilitated through the solids, but also because the inclosed column of air is thus made *air-tight*, and all external noises and motions being so excluded, is the more sensitive to the vibrations proceeding from the chest. A trumpet-shaped pectoral end secures this perfect contact much more certainly than the conical one in general use. This stethoscope is constructed in two forms ; either in a single piece, or with the ear-piece capable of being taken off and of slipping into the hollow trumpet end.

In regard to ear trumpets Dr. Williams says, the best are made of silver, plated metal, or Japanned iron; but aluminium, on account of its lightness, may also be used for this purpose. Polished ebonite also forms a good reflecting surface, and although inferior in power to metal, it has advantages over it in point of lightness and freedom from intrinsic sound. The simplest and most efficient reflector is a hollow cone with a wide base open to receive as large a body of sound as possible, which is reflected directly to the apex, and conveyed through a short curved tube to the ear. To prevent the *conch-like roar* he opens one side of the cone by oblique truncation and prolongs the opening by a slit to within a few inches of the ear. In so doing, he says, "we get an instrument which has an obvious resemblance to the ear of many quadrupeds; and there can be little doubt that this form of external ear is wisely designed to aid their hearing in the simplest and most efficient way, by directing and concentrating sounds, without the confusing reverberations produced in complete tubes and cavities.

The paper is illustrated by four wood-cuts showing the two forms of the stethoscopes and the ear trumpets he recommends.

The patient in Dr. SAMUEL GEE's *Case of Renal Calculi*, was a man thirty-eight years of age, who inherited a gouty diathesis from his father, and who had been from childhood liable to attacks of pain in the right loin. Five months before his death the pain in the right loin became continual. About the same time, he noticed a swelling in the right half of his belly. When he came under Dr. Gee's observation, a tumour could be felt, corresponding in position with the visible swelling, and occupying a large part of the right side of the belly. The upper part of this tumour was hard as stone; the lower part was soft, and gave an imperfect fluctuation; moreover, even in this part hard spots could be reached by deep pressure. After death this tumour proved to be the right kidney, greatly enlarged. Its pelvis, which was very much dilated, contained: 1. A great calculus, weighing 36 ounces. 2. About a thousand smaller calculi. 3. A large quantity of calculous dust and purulent urine. The left kidney was also greatly enlarged, and its pelvis was distended by a calculus which weighed 9¾ ounces. Many of the calculi included under the second heading were unusually large, nine of them being larger than a cherry. Concerning the chemical composition of the calculi, Dr. Gee writes: The bulk of the large calculus was found by Dr. Russell to consist of phosphate of magnesia and ammonia nearly pure. Its brown nucleus was more complex in its nature, consisting of oxalate of lime, with traces of phosphate of magnesia and ammonia, carbonate of lime, and uric acid.

Putting aside a case in which, according to Civiale, Pohl found a stone which weighed more than five pounds in the kidney of a princess, two of these calculi are the largest on record.

Dr. JOHN HARLEY, in his report of *Cases of Disordered Muscular Movement, illustrating the uses of Hemlock*, takes occasion to call the attention of surgeons to the advantages they may derive from the judicious use of a plant which relaxes muscular fibre without diminishing the common sensibility or disturbing the intellectual functions. The muscles of the head and face are apparently affected to a greater degree by it than those of the rest of the body. Hence, as it produces, when pushed, complete relaxation of the orbicularis, it may frequently be given with advantage before the performance of operations upon the eye. It will also be found useful in overcoming the spasm which so frequently renders difficult the removal of foreign bodies from the œsophagus. It has this advantage over anæsthetics, that patients under its influence are able to help the surgeon by their efforts, and to guide them by their sensations.

The medicine was given in three cases of spasm and in one of epilepsy with hemiplegia, and in all with decided benefit to the patient. In the case first reported, in which the symptoms were as severe as in any of the others, there was chronic intermittent spasm of the right pectoral muscles and the left sterno-mastoid, and of the mass of muscles on the side of the neck—a condition which, although not entirely relieved by conium, was very much benefited by it. The largest dose ordered was ℥iv twice a day, but on one occasion a patient took by mistake ℥v. The effects of the hemlock in the case already referred to were as follows: "A fluidounce of the succus produced some giddiness and weakness of the knees, lasting for three-quarters of an hour; short of two fluidounces there was no marked effect on the spasm. Three and a half fluidounces caused great muscular relaxation, and at the end of two or two and a half hours, when the action had attained its maximum force, there was inability to rise from the sitting posture, or to walk without assistance, and as often as the knees were flexed to a right angle or a little less, he fell, and was unable to rise without assistance." There was, in addition, complete ptosis and relaxation of the orbicularis, moderate dilatation of the pupils, double or multiple vision, hanging of the lower jaw, loss of power in the masseters and temporals, and slow, painful, and imperfect deglutition. These effects came on a quarter of an hour after taking the medicine, and gradually increased in intensity until the end of the second or third hour, and then gradually declined and disappeared towards the end of the fifth hour. After doses of four ounces, they lasted for nine hours. The patient who took the dose of five ounces could neither speak nor move his legs for half an hour, but the effects passed off as usual.

If there be any special weakness of a set of voluntary muscles, hemlock will be found to affect these sooner and more powerfully than healthy muscles. It may therefore be used as a measure of the power of different sets of muscles. In regard to the extent to which coneism may be carried, Dr. Harley says the limits of safety are usually reached when deglutition is impeded; for here we trench on an involuntary act, but it may be carried thus far with perfect safety. In concluding his paper, Dr. Harley says: "I would not, however, that any one should be misled by the supposition that all spasmodic affections—all cases of epilepsy, for example—are benefited by hemlock. There is much to be learned in this direction; but, speaking generally, those spasmodic affections which may be expected to yield most readily to its influence have a cranial origin."

Dr. Symes Thompson communicated to the society, for Dr. Leonard H. J. Hayne, some notes *On the amount of Carbonic Acid found by experiment in the Air on board Wooden Frigates*, in which very much the same conclusions are announced as were reached by Dr. Rattray, who published a paper entitled *An Analysis of Ship Air and its Effects*, in the preceding volume of these *Transactions*.[1] The latter, indeed, seems to think phthisis and scrofula more common among seamen than the former, whose experience is confined to the royal navy, in which the seamen are of course picked men. The great impurity found by Hayne in the air between the decks and in the lower parts of the ship was carbonic acid. The amount varied at different times and places from 1.03 to 3.21 volumes per 1000. Ozone was never present in large quantity, except on the upper deck. It has been proposed to work an electrical machine occasionally on board ship, to make up the deficiency of ozone in the deeper parts; but the author seems to think that this could only be done at the expense of the already greatly reduced supply of oxygen.

---

[1] See number of this Journal for October, 1874.

We regret that the space at our command does not permit us to notice Mr. FRED. A. MAHOMED's paper *On the Etiology of Bright's Disease, and the Prealbuminuric Stage*, quite as fully as its importance demands. The author has noticed that the pulse occurring in erysipelas, the exanthems, and pregnancy—conditions in which albuminuria frequently arises—does not differ materially from that which is usually observed in acute Bright's disease, and that the latter very closely resembles that which has been described and illustrated by the sphygmograph as occurring in the chronic form of the disease. *Both* conditions are accompanied by a pulse of high tension; that is to say, one which usually requires a considerable amount of pressure, and especially is distinguished by a prolongation or undue sustension of the tidal wave. He therefore suspects that the vascular condition is the cause of the albuminuria, and not the albuminuria that of the vascular condition, as generally supposed. This high tension in the arterial system which precedes the appearance of albumen in the urine, is ascribable, in his opinion, either to the presence of a noxious material in the blood, such as lead, alcohol, uric acid in gout, scarlatinal poison; or else to a sudden chill, causing contraction of the superficial vessels and congestion of the internal organs. If this condition of high tension be sufficiently severe, he continues, transudation of the characteristic crystalloids of the blood, notably hæmoglobine, occurs before albumen appears in the urine, and they can be detected in that fluid by the guaiacum test for blood. A continuance of this condition gives rise to the appearance of albumen in the urine, and, if still unchecked or uncontrollable, Bright's disease in one of its forms ensues. On the other hand, if checked before the albumen appears, or immediately after its appearance, by a brisk purge or other appropriate means, the condition is suddenly changed, the tension disappears from the pulse and the crystalloids from the urine. The following is the procedure which he recommends for the detection of the crystalloids in the urine: Place a drop or two of the urine in a small test-tube; add one drop of the tincture of guaiacum and a few drops of ether; agitate, and allow the ether to collect at the top, forming an upper layer of fluid. If hæmoglobine be present, the ether carries up with it the blue colour that is produced, leaving the urine colourless below. This test is of course open to fallacies; saliva, nasal mucus, and a salt of iodine in the urine, all cause a development of a blue colour with the tincture of guaiacum, some without and some after the addition of ozonic ether. But all these fallacies may, the author says, if proper care be used, be avoided. He has applied this test to urines of all descriptions—to the pale urine of hysteria, to intensely high-coloured urine, to that of phthisis and other wasting diseases, to urine containing bile, sugar, excess of uric acid, lithates, phosphates, and excess of mucus; but in all these with negative results. The reaction can be obtained only in the earliest stages of either the acute or chronic form of Bright's disease, usually before the albumen appears, or when it is present in only small quantities. It does not occur in chronic albuminuria, except when blood is also present in the urine; when this does occur, the guaiacum test *gives by far the earliest indications of its presence that can be obtained.*

Mr. Mahomed doubts whether it is strictly correct to apply the term inflammatory to acute Bright's disease. It is not an actual inflammation of the kidney that is the cause, in his opinion, of the symptoms, but a general blood-poison by which the kidney is not alone affected, but suffers in common with other organs, notably those of excretion. In this connection he refers to the views of Drs. Walshe, Fenwick, and Wilson Fox, with which our readers are doubtless familiar. The last-named physicians have demonstrated that a similar condition to that which exists in the kidney exists also in the stomach and duodenum; it probably exists also throughout the intestinal tract. Mr. Mahomed, reasoning from analogy, believes that the skin is affected in a similar manner, namely, that the sweat glands become blocked from a similar proliferation of cells, and are unable to act, thus producing the dryness and roughness of the skin with which all are so familiar in Bright's disease. If a patient having a quantity of effete poisonous matter in the blood, which he is excreting as rapidly as possible, has the function of his bowels or of his skin suddenly or gradually arrested, extra duty will be thrown upon the kidney. This organ, therefore, receives an increased blood supply, and that under a higher pressure than usual. The next step in the process is an increased production of the epithelium of the tubules.

In regard to the hypertrophy of the heart and arteries, so frequently met with in chronic Bright's disease, the author says:—

> "I have attempted to prove that this high pressure in the vascular system, is not the result of kidney disease, but of a primary blood poison, and I believe that the fact of increased pressure demonstrated to exist in the capillaries, by exudation through their walls of the crystalloids, negatives Dr. Johnson's view of the production of hypertrophy of the heart by the stopcock action of the arterioles; for if this existed, the pressure in the capillaries would not be increased. I should imagine, moreover, that the effort of the muscular coat of the arterioles to prevent over-distension by the increased pressure would be sufficient to account for their hypertrophy, while the increased work of the heart to overcome the increased pressure in the vessels would be amply sufficient reason for a similar change in that organ."

Albuminuria is frequent during pregnancy, and is, in the author's opinion, due to the fact that the blood is overcharged with effete material, for the mother has to discharge the excrementitious matters of the fœtus by her own excretory organs; her blood is therefore in a measure poisoned, and like a scarlatinal convalescent, does not bear its normal relation to the tissues, while the organs of excretion have to do increased work, and that under increased pressure; should then one of them be interfered with, as by constipation or a chill, albuminuria appears a very probable result.

The paper is illustrated by numerous cuts representing sphygmographic tracings obtained in cases of Bright's disease.

Mr. EDWARD SPARKS, in the course of an article *On a Disease of the Skin produced by the Acarus Folliculorum, illustrated by Cases observed in the Dog,* alludes to the fact that, notwithstanding that the experiments of Dr. Gruby, performed in 1846, when he was professor of anatomy and histology in Paris, show that extensive loss of the hair and an unhealthy condition of the follicles of the skin follow the inoculation of dogs with acari, most of the writers on dermatology believe that the parasite gives rise to no disease—not even to comedones or acne. Reasoning from some observations which he has recently made upon dogs that were the subjects of this disease, he believes this opinion to be incorrect. The dogs, three in number, which had acquired the disease in an unknown way, all died in consequence, it was believed, of the loss of their hair. In all three of the animals there was an enormous number of the acari present, dilating the hair-follicles and filling the sebaceous glands, so as completely to destroy their secreting cells. There were also inflammatory changes in the cutis of greater or less extent, arising from the irritation of the acari and the scratching of the dog. The paper is illustrated by a plate showing the alterations in the hair follicles produced by the acarus.

The concluding paper in the volume is by Dr. HORACE DOBELL, and is entitled *A Contribution to the Natural History of Pulmonary Consumption, consisting of an Analysis of One Hundred Male Cases of Hæmoptysis.* This analysis shows the relation in point of time between the first hemorrhage and the first loss of weight to be as follows: First hæmoptysis occurred before first loss of weight in 8 per cent. of the cases. At the same time as first loss of weight in 10 per cent., and after first loss of weight in 82 per cent. The relation which cough bore to hæmoptysis in these cases, as regards priority, will be seen from the following: First cough occurred before first hæmoptysis in 87 per cent. At the same time as first hæmoptysis in 12 per cent. After first hæmoptysis in 2 per cent. Cough preceded first loss of weight in 69 per cent., and was preceded by it in 31 per cent. of the cases. Dr. Dobell, while holding that hemorrhage is not often the cause of lung disease, admits that in some cases it may be so. "I am disposed," he says, "to place it only as one item, and that a very occasional one, in a large and important group, embracing all foreign substances which find their way into the peri-vascular and peri-alveolar tissue of the lungs, and by their irritation there, set up lymphatic (adenoid) and connective tissue cell-proliferation and its consequences." J. H. H.

ART. XXVIII.—*Transactions of the American Ophthalmological Society.* Tenth Annual Meeting, 1874. 8vo. p. 274. New York: Wm. Wood & Co., 1874.

THIS number of the *Transactions* contains more than twice as many pages as the last, and represents an amount of good work most creditable to a comparatively small society, only twenty-six members being present.

The first paper is by Dr. H. D. NOYES, who reports a case in which *astigmatism* seemed to have been *produced by tenotomy of* the internal *recti muscles* for the relief of diplopia due to paresis of the left externus. The left internus was cut three times and the right once. Five years after the first operation a myopic astigmatism of $\frac{1}{48}$ in each eye had increased to $\frac{1}{15}$ in the left eye, and $\frac{1}{36}$ in the right, and two years later there was $\frac{1}{12}$ in the left and $\frac{1}{20}$ in the right. He calls attention to the common association of myopic astigmatism and muscular insufficiency, and suggests the possibility that a certain number of cases of astigmatism may have their origin in defective muscular equilibrium.

Dr. WM. THOMSON reports several *cases of conical cornea* in which vision had been very much improved by correction with cylindrical glasses of high power, and urges the importance of making a careful optical analysis of such cases before proceeding to operative interference.

An interesting point in these cases is that "their histories demonstrate that the optical defects were induced in eyes that were probably emmetropic, by